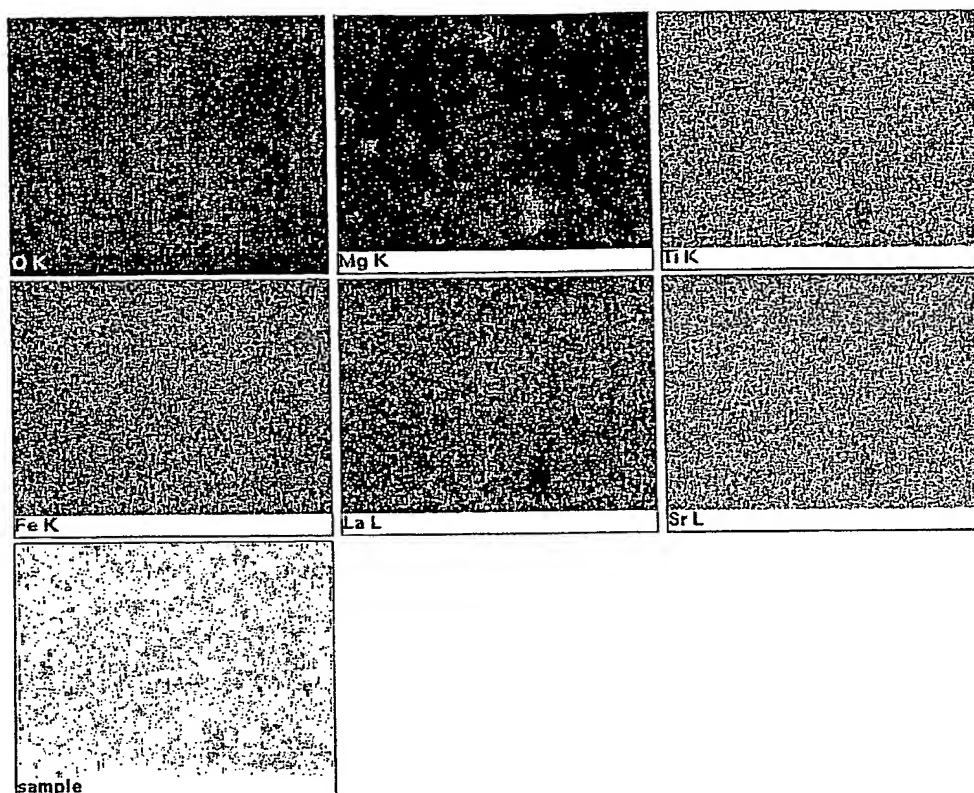


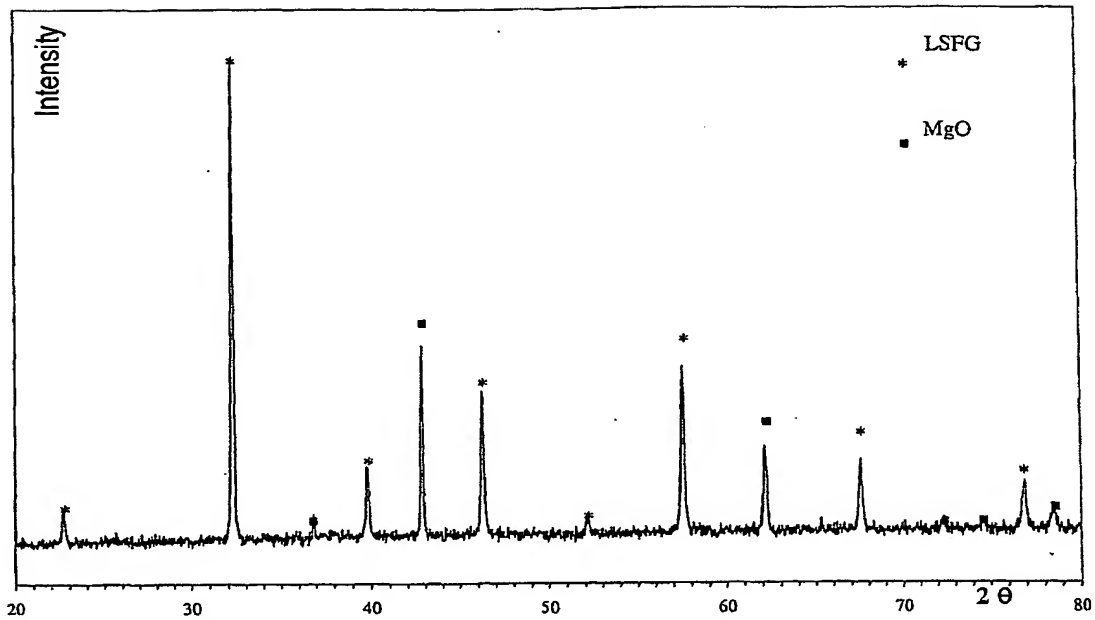
**Figure 1:** Addition of MgO (5 vol%) in a ceramic matrix:  $\text{La}_{0.5}\text{Sr}_{0.5}\text{Fe}_{0.9}\text{Ti}_{0.1}\text{O}_{3-\delta}$  sintered in nitrogen at 1150°C for 1.5 h (magnifications:  $\times 8000$  for the left-hand image and  $\times 10\,000$  for the right-hand image).

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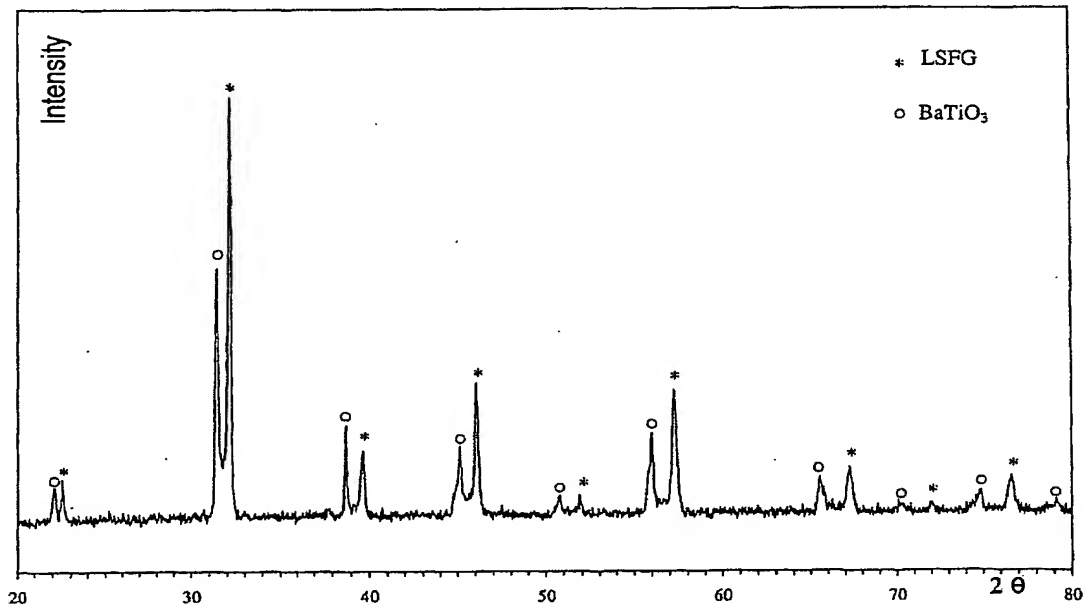


**Figure 2:** Maps for the elements Mg, Sr, La, Fe and Ti in the ceramic matrix after sintering in nitrogen at 1150°C for 1.5 h.

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**Figure 3:** X-ray diffraction diagram of the LSFG/MgO composite; the two phases coexist and no secondary phase appears.



**Figure 4:** Diffraction diagram of an LSFG/BaTiO<sub>3</sub> composite; the two phases coexist and no secondary phase appears.

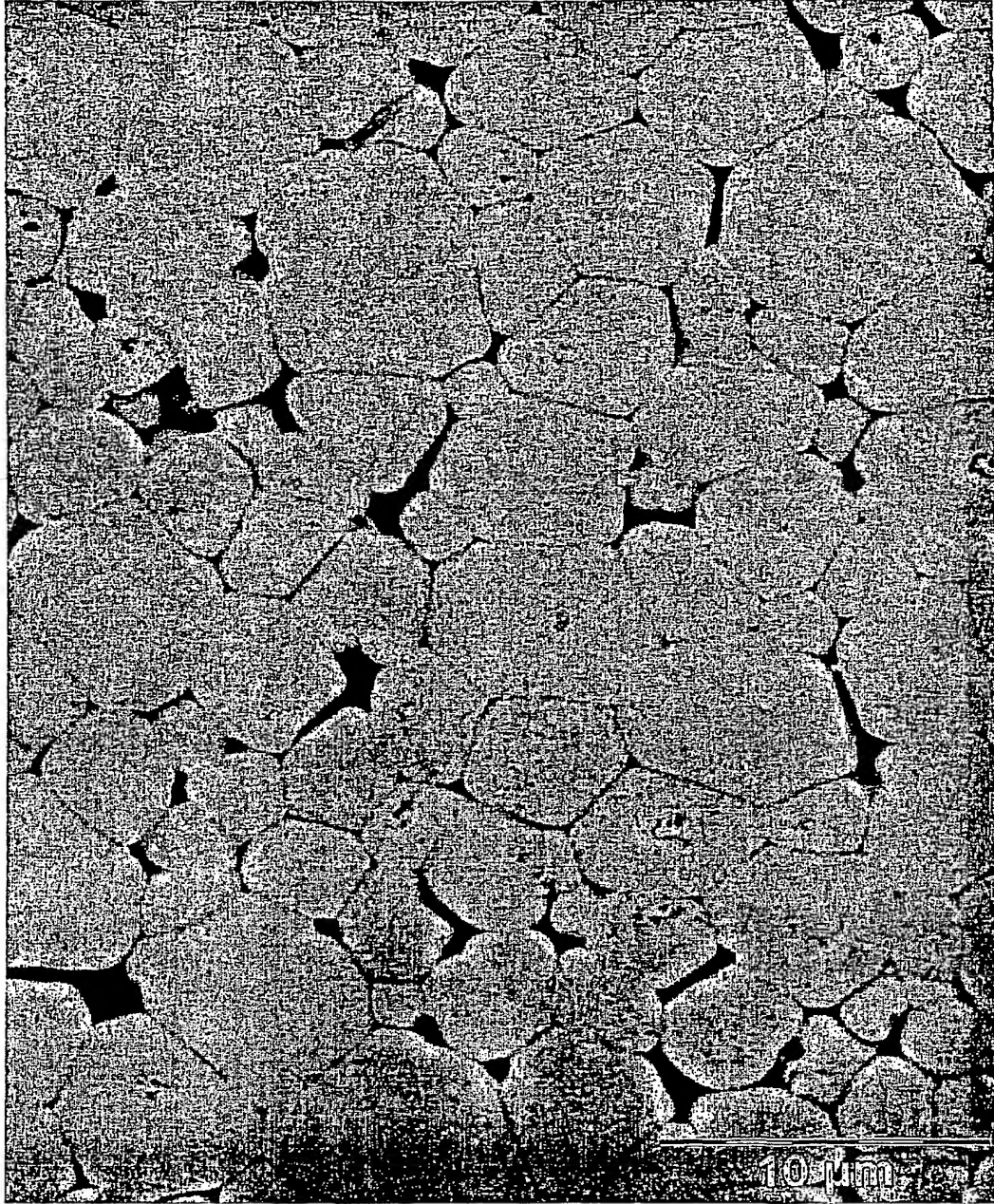


Figure 5

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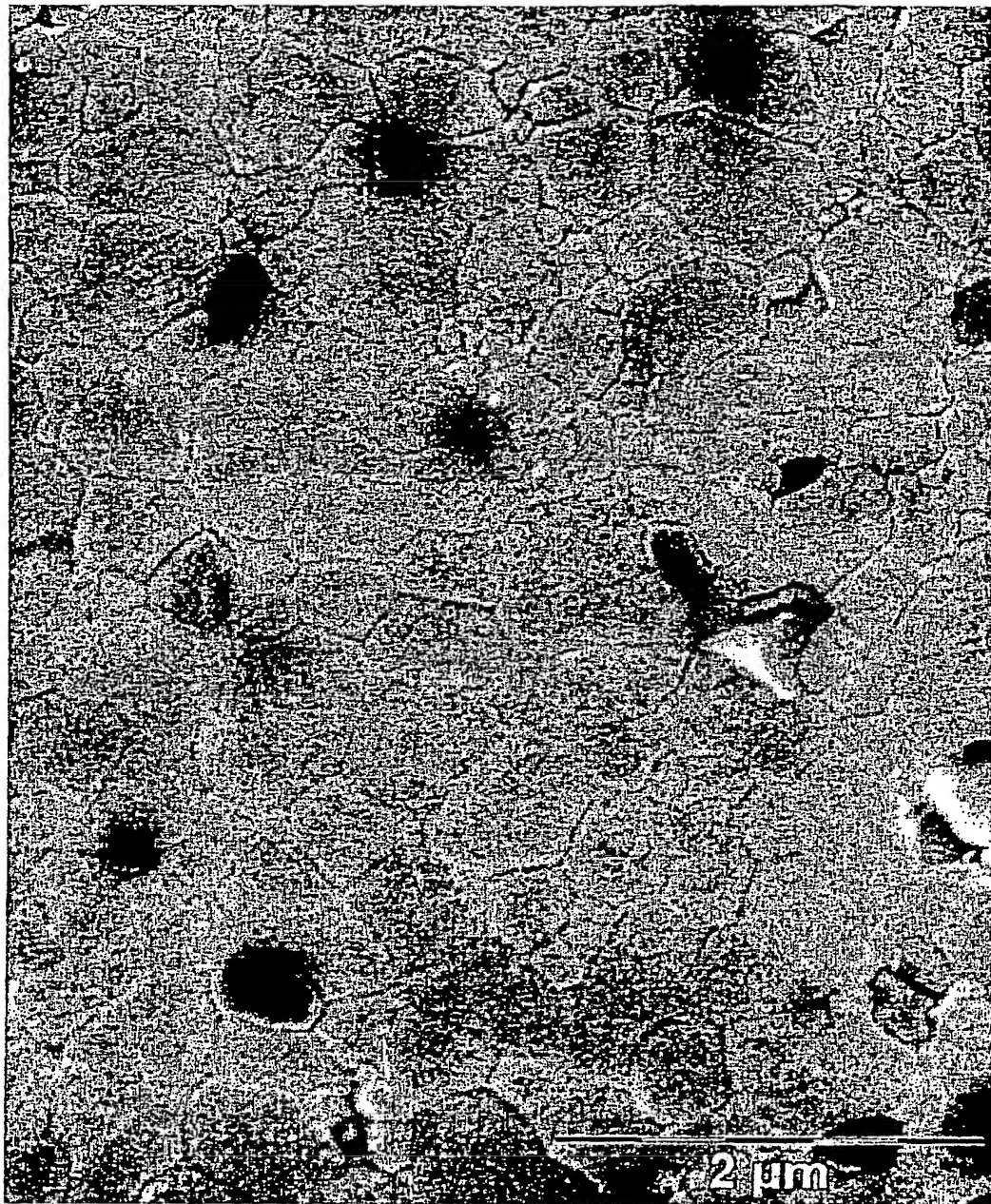


Figure 6

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Figure 7

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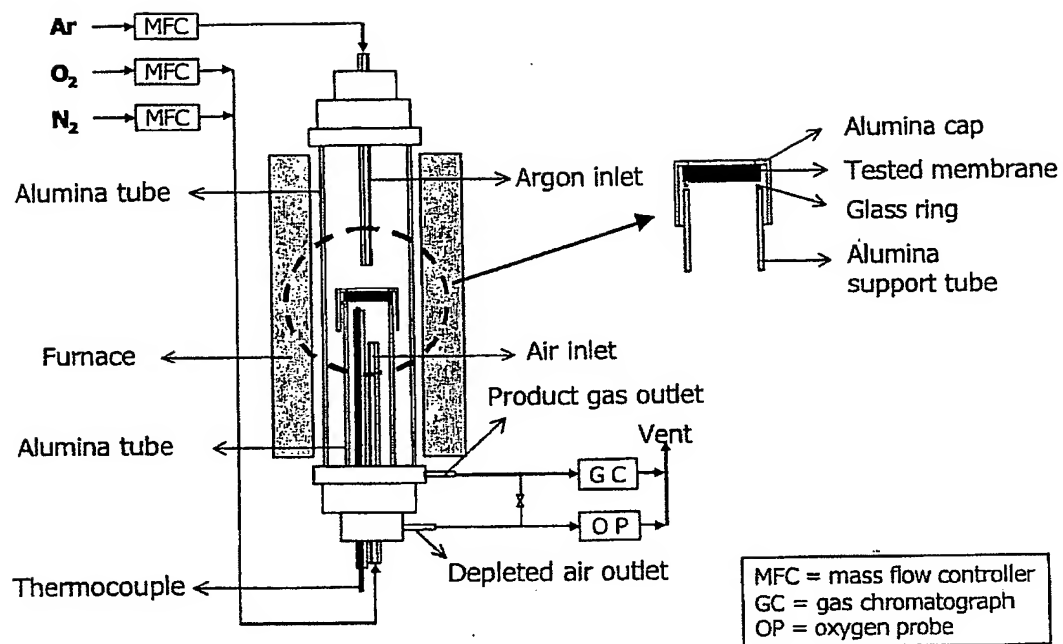


Figure 8

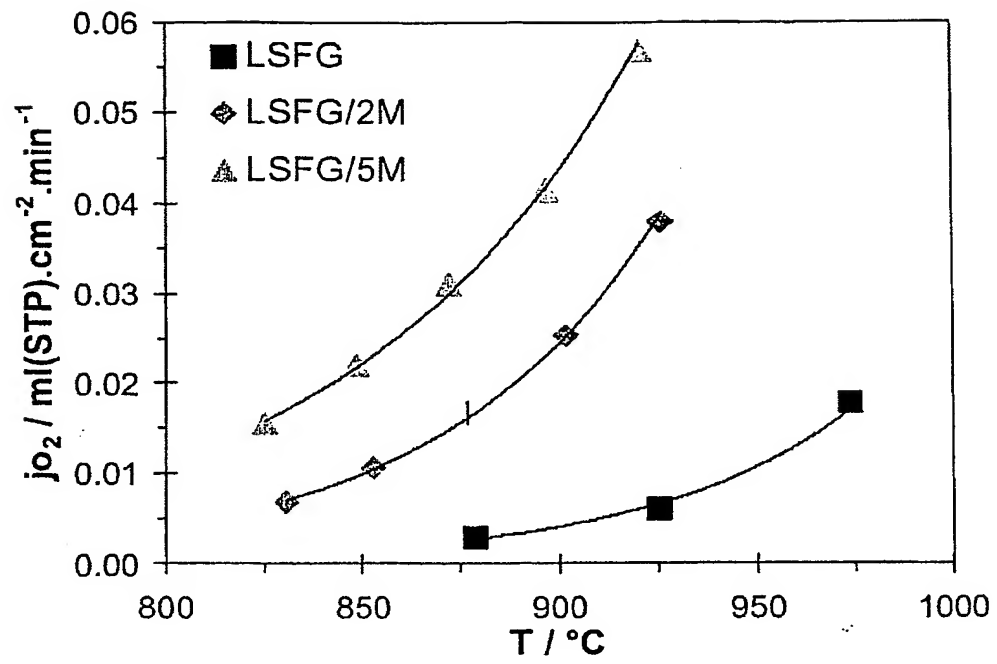


Figure 9



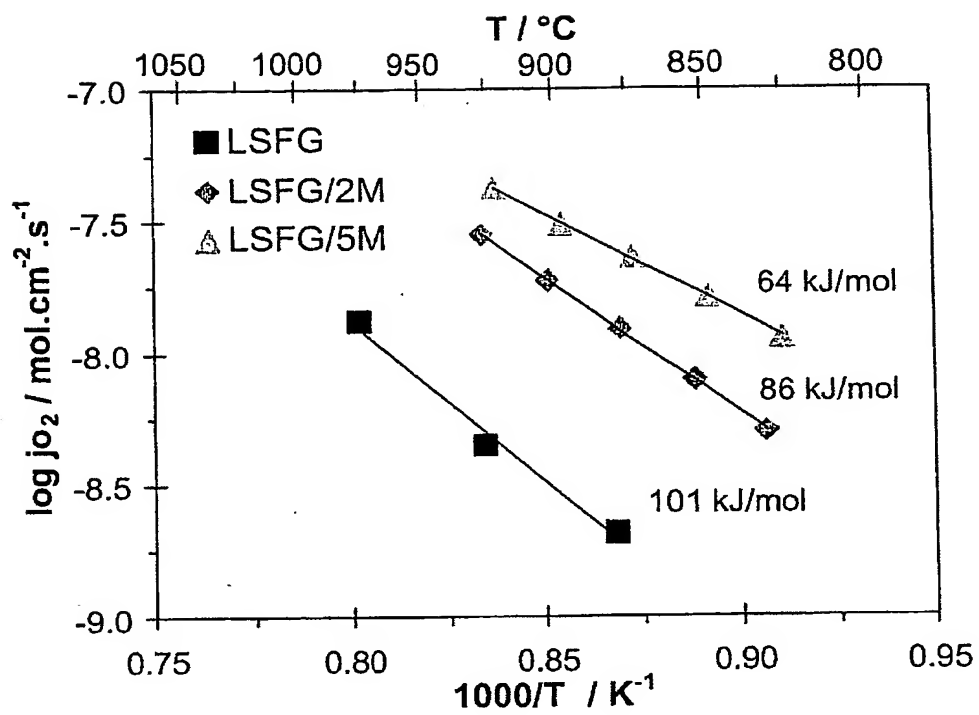


Figure 10